

Industrial And Agricultural Technology (IAT)

Program Concept, Mission, Standards and Areas of Study

Mission Statements

1. Provide sound industrial and agriculture training for students in rural schools of Utah.
2. IAT completers should be able to compete in a statewide job market.
3. IAT is limited to rural schools (maximum two teachers).
4. The size of the school should not influence quality or educational opportunity for the students.
5. IAT program will be individualized.
6. IAT program will reflect current technology. The curriculum will be competency based.
7. IAT program will allow students to participate in a youth leadership organization.

Industrial and Agricultural Technology (IAT) Program Standards

The IAT program should include the following:

1. An appropriate integration of the skills, information, and laboratory activities unique to *Technology and Engineering Education*, *Agricultural Education*, and *Trade and Technical Education*.
2. Provide an individualized instructional system of a competency-based curriculum.
3. Provide opportunity for all students to participate in a *Career and Technical Leadership Organization*.
4. Provide instruction and activates related to entrepreneurship.
5. Provide occupational guidance and planning as an integral component of the instructional program.
6. Support from a program advisory committee representing the community, parents, and industry.
7. The programs should be “market driven” with the market identified as the community, area, or state.
8. Teacher qualifications = *secondary License area with a Agriculture (ATE/General) and the Technology and Engineering Education (ATE/General)*

Industrial and Agricultural Technology (IAT)

Areas of Study

Competencies should be developed in the following areas:

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| 1. | Communications | Oral and written, including visual, audio, design and drafting, computers, photography, graphic communications, telecommunications. |
| 2. | Power/energy and Mechanics | Hydraulics, pneumatics, mechanical, electrical, including small engines, control, and maintenance of power systems, automation, conservation and alternative energy. |
| 3. | Construction | Carpentry, plumbing, electrical, metal, and other related trades and processes. |
| 4. | Agriculture Science/Technology | Animal systems, plant systems including production, processing, management, sales and service. |
| | Animal Science | Agricultural, animal nutrition, physiology, reproduction, management, marketing, and processing. |
| | Plant and Soil Science | Agronomical principles and practices related to plant growth and development, marketing, and stewardship of soil resources. |
| 5. | Leadership | Provide opportunity for students to participate in <i>SkillsUSA</i> , <i>TSA</i> or FFA student organizations including orientation to entrepreneurship. |
| 6. | Manufacturing | Materials and processes including foundry, welding, cabinetmaking, computer controlled machines, metal fabrication, etc. |
| 7. | Occupational Guidance | Training regarding jobs including aptitude interest inventory, job opportunities (state/area/community), salaries, job conditions, supervised occupational experience programs, and summer agricultural program. |

Paradigm for Industrial and Agricultural Technology (IAT) for Rural Schools in Utah

Goal: Expanding Career Options and Preparation for All Students

Entrance into Employment or Advanced Educational Opportunities:

Concurrent Enrollment
OJT-Coop Ed, Apprenticeship

Industry Workshops
Applied Technology Centers

Community College
University

Industrial and Agricultural Technology Competency-Based, Self-Paced Occupationally Oriented, Individualized Instruction	IAT Advanced Application 10-12 Grades	All curriculum areas evolve into advanced individual/group inquiry, problem solving, research and development activities																			
		Design and Drafting	Audio-Visual	Printed Graphics	Electronic Communications	Construction Materials and Processes	Codes and Permits	Construction Engineering	Energy Efficiency	Mechanical Technology	Power/Energy	Electricity/Electronics	Principles of Technology 8-14 (PT 1-7 Required Prerequisite)	Materials and Processes	Production Technology	Equipment Maint. and Repair	Automated Manufacturing	Animal Science	Plant Science	Horticultural Science	Agricultural Management
Principles of Technology--Units 1-7 (Recommended Prerequisite)																					
IAT Exploratory 9th Grade Level 1	Communications Technology	Construction Technology	Power/Energy/ Mechanical Technology			Manufacturing Technology			Agricultural Science Technology												
Introductory 7-8 Grades	Technology, Life and Careers--TLC																				
	Technology/Agriculture (Expanded in Above Chart)					Home Ec./ Health Occupations					Business/Marketing										
Awareness K-6 Grades	Technology in Elementary School																				

Leadership (TSA, VICA, FFA)---Career Guidance

Agricultural Management

Leadership (TSA, VICA, FFA)--Career Guidance